

REMARKS/ARGUMENTS

Claims 6, 7 and 17 have been canceled. Claims 1-5 and 8-16 and new Claims 18 and 19 are active in the case. Reconsideration is respectfully requested.

The present invention relates to a process for the preparation of polyurethane foams.

Specification Amendments

The specification has been amended in order to comply with the formal requirements of providing a text with appropriate headings. Entry of the amendments into the record is respectfully requested.

Claim Amendments

Claim 1 has been amended by incorporating the limitation of Claim 7 therein and by reciting that the acrylate polyol component of compound (b) is prepared by copolymerizing hydroxyl-functionalized (meth)acrylates with (meth)acrylates having no hydroxyl functional groups and optionally with an unsaturated monomer. Other minor changes in syntax have also been made to the claim.

Minor amendments of form have been made to other of the claims.

New Claim 18 is supported by previously active Claim 1.

New Claim 19 finds support in Claim 1 and is further narrowed with respect to the scope of compound (b). None of the amendments that have been made introduce new matter into the case. Entry of the amendments into the record is respectfully requested.

Prior Art Rejection, 35 USC 102(e)

Claims 1-17 stand rejected based on 35 USC 102(e) as anticipated by Bruchmann et al, U. S. Patent 6,696,505. This ground of rejection is respectfully traversed.

It is clear that the Bruchmann et al patent represents closely relevant prior art to the present invention, because it discloses a foamed polyurethane that is prepared by the reaction of polyisocyanates with a compound that has at least two hydrogen atoms reactive with an isocyanate group. The reactive compound containing at least two hydrogen atoms is at least one acrylate polyol that may be combined with at least one polyester polyol or a polyether polyol. However, the critical distinction between the disclosure of Bruchmann et al and the present invention as claimed is that in the reference, the reactive polyisocyanates are always aliphatic isocyanates, whereas in the present invention as claimed the reactive polyisocyanates are always aromatic polyisocyanates. This distinction is important, because in Bruchmann et al the objective was to improve the mechanical properties of polyurethane foams based specifically on the aliphatic polyisocyanates, whereas in the present invention the objective to improve the ageing properties of polyurethane foams, and especially to avoid the formation of aromatic amine degradation products. Accordingly, it is clear that the patent fails to anticipate the invention as claimed and withdrawal of the stated ground of rejection is respectfully requested.

Claims 1-17 stand rejected under the judicially created doctrine of obviousness type double patenting in view of the claims of the Bruchmann et al patent. This ground of rejection is respectfully traversed.

Applicants traverse the double patenting rejection for the same reason as advanced above in the discussion of the anticipatory ground of rejection in that the process of the reference is confined to polyisocyanate reactant that is specifically of the aliphatic polyisocyanate type, whereas in the present invention the polyisocyanate reactant is an aromatic di- or polyisocyanate. The claims of the patent do not suggest an aromatic di- or polyisocyanate and therefore, the obviousness type double patenting rejection is obviated. Withdrawal of the stated ground of rejection is respectfully requested.

Claims 1-13, 16 and 17 stand rejected based on 35 USC 102(b) as anticipated by Daumiller et al, U. S. Patent 3,314,901. This ground of rejection is respectfully traversed.

The Daumiller et al patent discloses relevant prior art to the present invention in that it describes polyurethane foams that are prepared by reacting aromatic polyisocyanates with at least one active hydrogen containing compound which, as described in column 1, lines 51-59, is polyesters and/or polyethers and with a copolymer formed by reacting polymerizable α,β -ethylenically unsaturated compounds which must include an α,β -ethylenically unsaturated compound that contains a tertiary nitrogen atom. Examples of such tert-nitrogen atom containing compounds are described in columns 2 and 3 of the patent and the tert-nitrogen atoms function as catalysts in the reaction. On the other hand, this reactive monomer containing the tert-nitrogen atoms is excluded as a reactant from the present claims. Accordingly, the reference does not anticipate the invention as claimed and withdrawal of the stated ground of rejection is respectfully requested.

The provisional double patenting ground of rejection that has been raised based on the claims of copending application Serial No. 10/469,846 will be substantively addressed once patentable subject matter has been identified in the copending case.

Appln. No. 10/516,074
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It is now believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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